

have associated with it a component distribution for easterly circulation similar to the low temperature pole of northeast Siberia, in the Northern Hemisphere. The intensity of the cold in the south polar regions is undoubted, and the existence of the distribution for an easterly circulation round a high-pressure center, due to the weight of the lower air, follows directly therefrom.

A third effect of the distribution of pressure in lower regions of the atmosphere, and the corresponding air circulation, may perhaps be traced in the series of wind charts of the South Atlantic already referred to, where there is obvious evidence of a tendency of the winds to run tangentially to the coast line. The coast line is equally obviously a line of separation between regions of different surface temperature distribution, and hence a locality of steep temperature gradient. Thence follows a steep pressure gradient for the lower atmosphere, and associated therewith a distribution favorable for the flow of air in opposite senses on the two coast lines for the same latitude.

The division of the atmosphere into an upper and a lower stratum at the 4000-meter level is perfectly arbitrary, and that level is chosen only because M. Tiesserenc de Bort selected it for constructing his charts of mean isobars of the upper air eighteen years ago.<sup>6</sup> It is in the region of the clouds of intermediate height and probably does not correspond with any specific discontinuity in the atmospheric layer. It is accordingly remarkable that the separation of the surface, or resultant distribution, into two distributions of opposite type should be so complete when the level of 4000 meters is taken as the surface of separation. It is not desirable to follow out the consequences of small differences that might be found, because the calculation of the isobaric distribution at high levels is itself as yet not susceptible of very great accuracy, and indeed the distribution of pressure at sea level even in the Northern Hemisphere is not entirely free from uncertainty, owing to the uncertainty of the reduction for altitude.

The remarks in this paper refer to the circulation in middle and higher latitudes, because the determining force for steady motion is assumed to be dependent upon the velocity of motion of the air and rotation of the earth. The acceleration computed from these elements contains  $\sin \lambda$  as a factor, and it is therefore without serious influence in the equatorial regions.

It is fortunate that this is so, because the drift of upper air over the equator is generally accepted as being from east to west, and about 80 miles per hour may be assigned as the rate of this drift. From the results of Sir J. Eliot's work on the cloud observations of India,<sup>7</sup> it appears that at Simla, in latitude  $31^\circ$  north, the westerly current in the upper air is extraordinarily steady throughout the year, whereas at Madras the upper current shows considerable variation with the season. Between the westerly current at Simla and the easterly equatorial upper current there must be a region where the conditions in the upper air are in many ways similar to the surface conditions in temperate latitudes, that is to say, steady motion would involve the existence of two oppositely directed streams of air at the same level, but in not far distant latitudes. It would appear that for rotary storms originating in that region the gradient must depend only upon local centrifugal action and the velocities for given barometric variations must be correspondingly great. I am not sufficiently well acquainted with the sequence of events in a tropical hurricane to be able to follow out the suggestion that those phenomena have their origin in the upper air; I hope to be able on a subsequent occasion to cite examples to show that storms in the region of the minimum pressure in temperate latitudes may arise from special surface conditions, and there is at least some evidence for the correlative origin of tropical hurricanes.

I have made no comparison of the first results of this method of analysis of the average barometric distribution with the conclusions arrived at by Thomson and Ferrel, for the general circulation of the atmosphere, nor with those more recently obtained by Bigelow, because the method of treatment is in some respects novel, and it seems desirable to wait for its further application before making any such comparison. I may remark, however, with regard to the theories of the two authors first mentioned, that a steady circulation around the polar regions requires only the supply of the comparatively small amount of energy necessary to make up the loss occasioned by surface friction, and consequently no great transference of energy from the equatorial regions to middle or higher latitudes in the form of heat or otherwise is demanded for the maintenance of the circulation.

Moreover, I have confined my observations to the barometric distributions for the month of January. So far as I have examined the distributions for July, the conclusions to be drawn from them are in many respects similar, but the separation of the pressure component for easterly circulation from that for westerly is not complete at the 4000-meter level as it is in the case of January.

In conclusion, I desire to acknowledge the assistance I have received from Mr. G. T. Bennett, M. A., of Emmanuel College, Cambridge, with whom I have discussed especially the dynamical questions involved, and from Mr. R. G. K. Lempfert, M. A., and other members of the staff of the Meteorological Office, who have supplied me with much of the material upon which the general conclusions set out in this paper have been based.

#### HOURLY CLIMATIC RECORDS ON THE ISTHMUS OF PANAMA.

By Gen. H. L. ABBOT, U. S. A., retired. Dated June 4, 1904.

Appreciating the value of the most precise information attainable as to the climatic conditions existing upon the Isthmus, the engineers of the New Company, before resuming canal operations upon a large scale, inaugurated, in July, 1899, a series of automatically recorded, continuous observations at Alhajuela on the upper Chagres River and at La Boca on the Bay of Panama. The early records, which appeared in the MONTHLY WEATHER REVIEW for May, 1899, and March, 1903, have given a good general idea of these conditions, but it is only by a long continued hourly study that many important details can be made known. When the canal property was transferred to the United States, in April, 1904, these records of the company covered five years for eight of the months, four years for three of the months, and three years for May. This present paper discusses the data collected.

The two localities are well suited to develop any characteristic differences between the climate of the interior, where the largest works must be executed, and that on the Pacific coast, where is found the largest population. Table 1 presents a general summary of the data collected relative to temperature. It is apparent from the figures not only that the monthly variation is extremely small during the entire year, but also that there is no sensible difference in mean monthly temperatures between the interior and the Pacific coast. There are, however, important differences in the daily range between extremes, which increase from about  $9^\circ$  F. at La Boca to  $13^\circ$  F. at Alhajuela, and also in the critical hours, especially that of extreme heat, which is always earlier in the interior than on the Pacific, and later in the dry than in the rainy season. Figure 1 exhibits these differences to the eye.

During these five years the rainfall was rather less than that indicated for other and longer periods. As there is an intimate relation between rainfall and temperature, Table 2 is added to facilitate comparisons; it should be considered in connection with a similar consolidated table, covering a wider district and many more years, which appeared in the MONTHLY

<sup>6</sup> Annales du Bureau Central Météorologique de France, 1887, Part I, p. C. 1. <sup>7</sup> Indian Meteorological Memoirs, vol. 15, Part I, 1903.

WEATHER REVIEW for March, 1903. Italicized figures denote interpolations from general means.

TABLE 2.—Rainfall (in inches) at the stations during period of continuous observations.

Month.	1899.	1900.	1901.	1902.	1903.	1904.	Means.
January		1.81	0.20	1.30	0.20	2.99	1.30
February		0.04	0.04	0.35	0.76	0.24	0.16
March		0.04	1.81	0.39	0.39	0.59	0.63
April		4.09	2.52	5.66	0.47	6.96	3.94
May		10.19	15.87	11.30	7.83		11.30
June		17.84	12.01	9.05	10.55		10.39
July	11.69	19.73	7.95	12.79	19.69		14.37
August	10.19	10.55	17.88	9.45	15.75		12.75
September	8.07	17.21	15.91	10.13	8.34		12.05
October	11.85	13.27	22.29	11.26	15.51		14.54
November	10.78	13.35	21.50	18.66	16.30		16.14
December	1.89	1.14	4.87	4.52	20.71		6.61
Year		109.30	122.80	95.40	116.00		104.50

LA BOCA.							
Month.	1899.	1900.	1901.	1902.	1903.	1904.	Means.
January		0.75	2.28	5.19	0.55	2.60	2.28
February		0.00	0.12	0.04	0.00	0.35	0.12
March		0.00	2.05	3.11	0.04	4.99	2.05
April		2.24	4.09	5.19	1.26	7.75	4.09
May		11.22	7.20	9.88	6.69		8.74
June		8.89	7.67	5.43	2.48		6.10
July		15.83	9.76	5.35	7.00		9.48
August		5.98	5.39	4.17	14.68		7.65
September	6.14		9.01	6.76	4.32		6.67
October	11.97		11.34	10.67	4.87		9.72
November	8.93		14.64	11.41	8.66		10.90
December	4.32		3.70	2.80	8.62		4.87
Year		76.26	77.25	70.00	59.17		72.47

TABLE 3.—Number of rainy days during the continuous records.

ALHAJUELA.							
Month.	1899.	1900.	1901.	1902.	1903.	1904.	Means.
January		8	5	7	4	12	7
February		1	1	2	2	2	2
March		1	3	3	3	5	3
April		9	5	16	3	10	9
May		18	25	22	22		22
June		24	22	27	24		24
July	20	26	21	23	29		24
August	21	22	25	20	27		23
September	20	19	23	18	18		20
October	21	20	26	26	23		23
November	21	20	27	24	27		24
December	11	10	16	12	25		15
Year		178	199	200	207		198

LA BOCA.							
Month.	1899.	1900.	1901.	1902.	1903.	1904.	Means.
January		2	6	8	5	9	6
February		0	1	1	0	3	1
March		0	4	4	1	10	4
April		5	7	6	5	13	7
May		6	14	12	18		12
June		17	18	7	9		13
July		9	17	8	24		15
August		10	16	21	21		17
September	20		19	14	15		17
October	18		22	20	21		20
November	16		19	17	20		18
December	6		11	7	19		11
Year		109	154	125	158		141

manner the extraordinary uniformity of the climate. The absolute extreme range of temperature recorded hourly during the entire period was at Alhajuela from 97.4° F. to 63.2° F. (36.3° to 17.3° C.), and at La Boca from 95.2° F. to 68.2° F. (35.1° C. to 20.1° C.), both including a normal horary variation of about 13° at the former and 9° at the latter. The barometric extreme oscillation, during the same period, ranged from 30.12 to 29.68 inches, also including the normal horary variation of about one-tenth of an inch. All these extremes occurred in the dry season, including February, March, and April.

It should be noted that the barometric records, as given, should be reduced by 5.65 millimeters for instrumental error, and increased about 3.7 millimeters for height above mean tide (143 feet), making a total residual correction of —1.95 millimeters. Figures in full-face type are extremes.

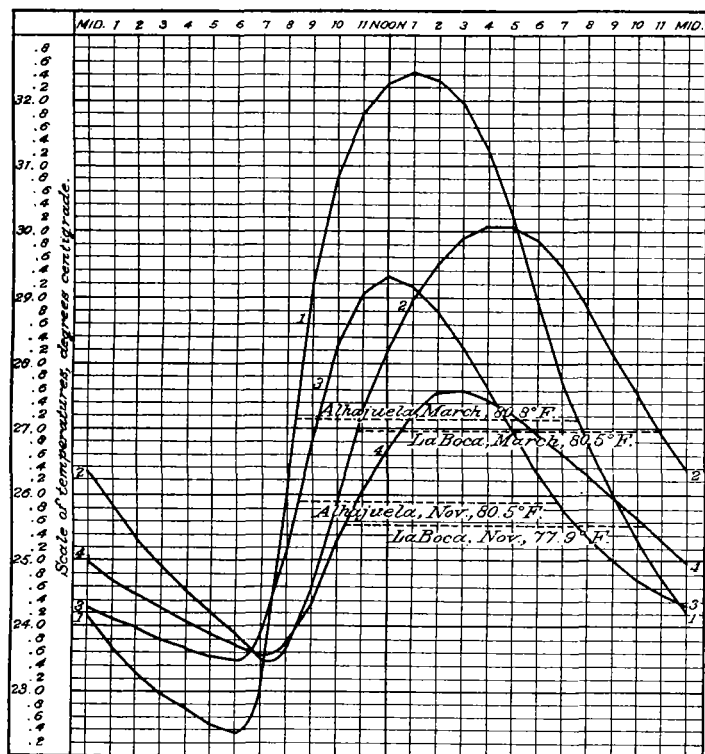


FIG. 1.

TABLE 1.—Summary of monthly mean temperatures.

ALHAJUELA.							
Month.	No. of years.	Mean daily.	Mean hottest.		Mean coolest.		
		° F.	Hour.	° F.	Hour.	° F.	
January	5	78.8	1 p. m.	86.3	6 a. m.	72.1	
February	4	80.6	1 p. m.	89.3	6 a. m.	72.8	
March	4	80.9	1 p. m.	90.4	6 a. m.	72.3	
April	5	81.1	1 p. m.	88.7	6 a. m.	74.3	
May	3	79.0	11 a. m.	85.3	5 a. m.	73.9	
June	4	79.7	noon.	86.6	6 a. m.	74.5	
July	5	79.1	1 p. m.	84.7	6 a. m.	74.7	
August	5	79.7	noon.	86.1	6 a. m.	74.8	
September	5	79.5	noon.	86.6	6 a. m.	74.4	
October	5	78.8	noon.	85.6	6 a. m.	73.7	
November	5	78.7	noon.	74.2	6 a. m.	74.2	
December	5	79.0	1 p. m.	86.2	6 a. m.	72.7	
Means	4.6	79.6	Noon.	86.7	6 a. m.	73.7	

LA BOCA.							
January	5	79.1	4 p. m.	84.0	7 a. m.	74.0	
February	5	80.2	4 p. m.	86.0	7 a. m.	74.3	
March	5	80.5	5 p. m.	86.1	7 a. m.	74.3	
April	5	81.1	4 p. m.	85.9	7 a. m.	76.0	
May	3	80.1	2 p. m.	83.6	7 a. m.	76.4	
June	4	80.7	3 p. m.	84.4	7 a. m.	76.6	
July	5	79.8	2 p. m.	84.0	6 a. m.	76.1	
August	5	78.9	2 p. m.	82.7	7 a. m.	75.0	
September	5	79.4	2 p. m.	83.6	7 a. m.	75.2	
October	5	78.4	2 p. m.	82.6	7 a. m.	74.4	
November	5	77.9	3 p. m.	81.6	6 a. m.	74.6	
December	5	79.0	4 p. m.	83.6	7 a. m.	74.2	
Means	4.8	79.6	3 p. m.	84.0	7 a. m.	75.1	

Table 3 is of practical interest in the construction of the canal, since it indicates the number of rainy days to be expected in the different months, so far as this may be inferred from a 5-year record.

Table 4 exhibits the hourly means of temperatures recorded for nearly five years at the two stations, and Table 5 the corresponding means of hourly barometric pressures at Alhajuela. The original units, degrees centigrade, and millimeters are retained.

These tables are arranged to show in the most striking

TABLE 4.—Temperature at Alhajueta, in degrees centigrade.

Hours.	January.							February.							March.						
	1899.	1900.	1901.	1902.	1903.	1904.	Mean.	1899.	1900.	1901.	1902.	1903.	1904.	Mean.	1899.	1900.	1901.	1902.	1903.	1904.	Mean.
1 a. m.	22.24	22.48	22.24	24.70	25.46	23.42		22.84	22.43			24.18	25.76	23.80		23.11	23.22		22.95	25.23	23.63
2 a. m.	21.92	22.16	22.07	24.19	25.15	23.10		22.61	22.03			23.88	25.45	23.49		22.86	22.82		22.47	24.86	23.25
3 a. m.	21.60	21.90	21.90	23.74	24.86	22.80		22.42	21.70			23.67	25.10	23.22		22.66	22.51		22.06	24.53	22.94
4 a. m.	21.35	21.65	21.77	23.35	24.63	22.55		22.21	21.55			23.49	24.76	23.00		22.52	22.22		21.83	24.40	22.74
5 a. m.	21.14	21.47	21.70	23.07	24.40	22.36		22.00	21.39			23.24	24.48	22.78		22.31	21.83		21.68	24.12	22.49
6 a. m.	20.97	21.28	21.76	23.15	24.24	22.28		21.84	21.16			23.30	24.27	22.64		22.22	21.58		21.65	24.09	22.37
7 a. m.	20.97	22.20	22.70	24.16	24.41	22.89		22.76	21.59			24.74	24.48	23.39		22.94	22.01		22.74	25.00	23.17
8 a. m.	22.57	25.66	24.44	26.26	26.01	24.99		25.75	24.67			28.01	26.86	26.32		26.12	25.04		25.44	27.33	25.98
9 a. m.	24.83	28.42	26.05	28.32	28.28	27.18		28.86	27.83			30.12	29.57	29.10		28.80	28.72		28.69	30.39	29.15
10 a. m.	26.84	29.66	26.77	29.78	29.07	28.52		30.10	29.63			30.99	31.16	30.47		30.18	30.62		30.72	31.71	30.81
11 a. m.	28.20	30.14	27.37	30.55	30.80	29.41		30.78	30.39			31.53	32.01	31.17		30.87	31.24		32.12	32.76	31.75
Noon.	29.00	30.52	27.74	31.26	31.43	29.99		31.05	30.81			31.79	32.55	31.55		31.24	31.60		32.86	33.20	32.23
1 p. m.	29.38	30.50	27.75	31.46	31.65	30.15		31.20	31.11			32.17	32.85	31.83		31.34	31.78		33.16	33.45	32.43
2 p. m.	29.35	30.04	27.45	31.40	31.57	29.96		31.05	31.14			32.11	32.99	31.82		31.21	31.71		33.08	33.45	32.36
3 p. m.	29.36	29.61	27.07	31.18	31.34	29.71		30.60	30.66			31.75	32.86	31.47		30.90	31.24		32.65	33.12	31.98
4 p. m.	28.93	28.87	26.66	30.80	31.05	29.26		29.94	29.94			30.94	32.41	30.81		30.36	30.37		31.91	32.42	31.27
5 p. m.	28.28	27.52	25.78	29.95	30.48	28.40		28.72	28.87			29.40	31.67	29.67		29.48	29.57		30.76	31.10	30.23
6 p. m.	27.27	26.49	24.89	29.15	29.75	27.51		27.51	27.51			28.42	30.68	28.53		28.00	28.20		29.33	30.23	28.95
7 p. m.	25.98	25.56	24.06	28.33	28.87	26.56		26.25	26.32			27.54	29.63	27.43		26.75	27.06		27.89	29.10	27.70
8 p. m.	24.92	24.78	23.54	27.77	28.17	25.84		25.42	25.39			26.72	28.82	26.59		25.72	26.30		26.81	28.34	26.79
9 p. m.	24.00	24.18	23.09	26.99	27.45	25.14		24.81	24.55			26.00	27.95	25.83		25.00	25.48		25.82	27.53	25.96
10 p. m.	23.40	23.61	22.81	26.46	26.87	24.63		24.22	23.94			25.33	27.30	25.20		24.38	24.82		25.09	26.83	25.28
11 p. m.	22.90	23.25	22.57	25.79	26.32	24.17		23.72	23.43			24.85	26.71	24.68		23.94	24.24		24.37	26.05	24.65
Midnight.	22.50	22.82	22.40	25.25	25.94	23.78		23.25	22.86			24.52	26.22	24.21		23.50	23.84		23.72	25.66	24.18
Means.....	24.92	25.61	24.36	27.38	27.87	26.02		26.37	25.83			27.44	28.61	27.04		26.52	26.58		27.08	28.54	27.18
Maximum.....	32.30	31.90	30.80	33.80	33.90	33.90		33.30	33.00			34.00	34.90	34.90		34.00	33.30		35.20	36.30	36.30
Minimum.....	18.90	18.40	19.00	20.10	22.00	18.40		19.00	19.00			21.20	21.40	19.00		18.00	18.80		17.70	19.90	17.70
Days of record.....	All.	All.	All.	30	All.			All.	All.			15	All.			All.	All.		30	All.	

Hours.	April.							May.							June.						
	1899.	1900.	1901.	1902.	1903.	1904.	Mean.	1899.	1900.	1901.	1902.	1903.	1904.	Mean.	1899.	1900.	1901.	1902.	1903.	1904.	Mean.
1 a. m.	23.94	23.56	25.65	24.52	24.87	24.50		23.38	23.52			24.78		23.89		24.01	23.45	25.18	24.66		24.32
2 a. m.	23.69	23.25	25.41	24.13	24.45	24.10		23.15	23.27			24.57		23.66		23.83	23.26	25.00	24.47		24.14
3 a. m.	23.44	22.93	25.18	23.78	24.35	23.94		22.95	23.12			24.43		23.50		23.67	23.08	24.76	24.31		23.95
4 a. m.	23.21	22.63	25.04	23.48	24.08	23.69		22.74	23.00			24.29		23.34		23.57	22.93	24.58	24.17		23.81
5 a. m.	23.06	22.38	24.88	23.21	24.00	23.51		22.80	22.89			24.22		23.30		23.52	22.78	24.37	24.03		23.68
6 a. m.	22.90	22.25	24.69	23.06	24.43	23.47		23.18	23.17			24.47		23.61		23.56	22.71	24.22	24.15		23.66
7 a. m.	24.25	23.49	24.62	24.53	26.00	24.58		25.13	24.63			25.80		25.19		24.17	23.88	24.66	25.55		24.56
8 a. m.	27.28	26.10	25.07	27.81	27.14	26.68		26.96	26.53			27.72		27.07		25.84	25.45	26.18	27.62		26.27
9 a. m.	29.36	28.87	26.47	30.67	28.17	28.71		28.23	28.39			29.15		28.59		27.37	27.26	28.14	29.34		28.03
10 a. m.	30.68	30.10	27.98	32.28	29.07	30.02		28.93	28.85			30.21		29.33		29.14	28.26	29.64	30.63		29.42
11 a. m.	31.52	30.75	29.13	32.93	29.71	30.81		28.95	28.94			30.79		29.66		29.97	28.70	30.52	31.33		30.13
Noon.	31.87	31.17	29.63	33.56	30.01	31.25		28.75	28.74			30.87		29.45		30.37	28.80	30.73	31.34		30.31
1 p. m.	32.04	31.47	30.04	33.81	30.23	31.52		28.57	28.05			30.79		29.14		29.78	28.61	30.49	31.15		30.01
2 p. m.	32.00	31.31	30.19	33.77	30.19	31.49		28.33	27.99			30.61		28.75		29.28	28.12	29.93	30.80		29.53
3 p. m.	31.66	30.70	30.09	33.33	29.89	31.13		27.81	27.07			30.41		28.31		28.43	27.79	29.21	30.22		28.91
4 p. m.	30.90	30.08	29.88	32.74	29.39	30.60		27.19	26.78			29.39		27.79		27.53	27.16	28.80	29.86		28.34
5 p. m.	29.99	28.97	29.41	31.36	28.67	29.68		26.58	26.23			28.67		27.16		26.69	26.54	28.39	28.92		27.64
6 p. m.	28.59	27.74	28.80	30.04	28.12	28.66		25.90	25.56			27.80		26.42		26.03	25.76	27.79	27.90		26.87
7 p. m.	27.41	26.88	27.88	28.61	27.44	27.64		25.26	25.12			26.97		25.78		25.52	25.15	27.26	27.01		26.23
8 p. m.	26.45	26.31	27.48	27.62	26.90	26.95		24.73	24.71			26.39		25.28		25.23	24.83	26.86	26.36		25.82
9 p. m.	25.69	25.59	27.09	26.74	26.35	26.29		24.31	24.35			25.92		24.86		24.97	24.50	25.39	25.84		25.43
10 p. m.	25.12	25.01	26.70	26.12	25.86	25.76		23.97	24.02			25.69		24.56		24.68	24.19	26.08	25.48		25.11
11 p. m.	24.66	24.46	26.33	25.51	25.47	25.29		23.77	23.78			25.34		24.30		24.40	23.88	25.76	25.20		24.814

TABLE 4.—Temperature at Alhajucla, in degrees centigrade—Continued.

Hours.	October.							November.							December.						
	1899.	1900.	1901.	1902.	1903.	1904.	Mean.	1899.	1900.	1901.	1902.	1903.	1904.	Mean.	1899.	1900.	1901.	1902.	1903.	1904.	Mean.
1 a. m.	23.85	23.40	22.84	23.81	26.39	.....	24.06	24.37	23.24	22.77	24.67	25.55	.....	24.12	23.26	22.78	22.36	24.24	26.39	.....	23.61
2 a. m.	23.60	23.23	22.66	23.61	26.14	.....	23.85	24.21	23.05	22.63	24.49	25.35	.....	23.95	22.98	22.56	22.11	23.87	25.22	.....	23.35
3 a. m.	23.40	23.07	22.46	23.44	25.88	.....	23.65	24.06	22.88	22.46	24.31	25.21	.....	23.78	22.77	22.31	21.94	23.54	25.02	.....	23.12
4 a. m.	23.24	22.94	22.29	23.25	25.68	.....	23.48	23.91	22.70	22.31	24.14	25.10	.....	23.63	22.61	22.10	21.74	23.25	24.82	.....	22.90
5 a. m.	23.08	22.78	22.12	23.13	25.51	.....	23.32	23.81	22.59	22.20	24.01	25.00	.....	23.52	22.43	21.87	21.60	23.04	24.67	.....	22.72
6 a. m.	22.95	22.62	21.94	23.11	25.32	.....	23.19	23.77	22.48	22.17	23.90	24.95	.....	23.45	22.23	21.72	21.63	22.91	24.55	.....	22.61
7 a. m.	23.75	23.21	22.82	23.68	25.24	.....	23.74	24.49	22.82	22.65	24.28	25.06	.....	23.86	22.50	22.51	22.56	23.27	24.57	.....	23.08
8 a. m.	25.81	24.52	24.02	25.28	25.79	.....	25.03	26.16	24.50	23.92	25.40	25.74	.....	25.14	24.91	24.53	24.41	24.88	25.69	.....	24.88
9 a. m.	28.20	26.92	26.26	27.10	27.29	.....	27.15	28.00	26.62	25.47	27.15	27.06	.....	26.86	28.00	27.48	25.85	27.23	27.23	.....	27.16
10 a. m.	29.20	28.66	27.67	28.40	29.05	.....	28.60	29.12	28.07	26.80	28.67	28.43	.....	28.22	29.36	28.97	26.73	29.10	28.66	.....	28.56
11 a. m.	30.15	29.25	28.30	29.11	30.40	.....	29.44	29.76	28.95	27.58	29.63	29.25	.....	29.03	30.16	29.56	27.51	30.33	29.75	.....	29.46
Noon	30.16	29.32	28.64	29.39	31.40	.....	29.78	30.15	29.17	27.64	30.00	29.71	.....	29.33	30.54	29.86	28.08	30.93	30.43	.....	29.97
1 p. m.	29.50	29.05	28.14	29.25	31.64	.....	29.52	30.23	28.79	27.12	29.95	29.73	.....	29.18	30.62	29.93	28.06	31.31	30.69	.....	30.12
2 p. m.	29.06	28.26	27.39	28.94	31.60	.....	29.05	29.88	28.14	26.72	29.58	29.58	.....	28.78	30.44	29.74	27.77	31.29	30.51	.....	29.95
3 p. m.	28.42	27.65	26.46	28.27	31.17	.....	28.39	29.11	27.70	26.17	28.94	29.36	.....	28.25	30.27	29.46	27.44	30.88	30.07	.....	29.62
4 p. m.	27.64	27.12	25.94	27.62	30.62	.....	27.79	28.20	27.07	25.60	28.21	29.08	.....	27.63	29.89	28.96	26.95	30.41	29.74	.....	29.19
5 p. m.	26.85	26.47	25.33	26.89	29.94	.....	27.10	27.42	26.42	24.95	27.40	28.66	.....	26.97	28.47	28.05	26.04	29.63	29.20	.....	28.28
6 p. m.	26.22	25.60	24.70	26.26	29.30	.....	26.42	26.62	25.46	24.47	26.79	28.08	.....	26.28	26.97	26.82	25.07	28.50	28.49	.....	27.17
7 p. m.	25.74	25.03	24.45	25.70	28.64	.....	25.91	26.02	24.82	24.13	26.37	27.49	.....	25.77	26.09	25.60	24.38	27.46	27.85	.....	26.28
8 p. m.	25.30	24.74	24.12	25.31	28.20	.....	25.53	25.60	24.37	23.74	25.96	27.04	.....	25.34	25.24	24.90	23.84	26.87	27.36	.....	25.64
9 p. m.	24.92	24.43	23.78	24.93	27.75	.....	25.16	25.28	24.06	23.44	25.62	26.59	.....	25.00	24.83	24.40	23.40	26.19	26.84	.....	25.13
10 p. m.	24.63	24.12	23.52	24.62	27.38	.....	24.85	24.97	23.79	23.21	25.23	26.26	.....	24.69	24.28	23.98	23.07	25.61	26.45	.....	24.68
11 p. m.	24.34	23.90	23.29	24.31	26.94	.....	24.56	24.75	23.60	23.04	25.06	25.93	.....	24.48	23.93	23.56	22.76	25.02	26.04	.....	24.26
Midnight	24.09	23.65	23.09	24.06	26.66	.....	24.31	24.53	23.39	22.89	24.85	25.67	.....	24.27	23.61	23.10	22.51	24.55	25.76	.....	23.91
Means.	26.00	25.41	24.67	25.81	28.08	.....	25.99	26.43	25.20	24.34	26.44	27.08	.....	25.90	26.10	25.61	24.08	27.22	27.29	.....	26.07
Maximum	34.40	31.60	31.60	32.20	34.80	.....	34.80	33.00	31.40	30.90	33.30	32.90	.....	33.30	33.00	32.00	32.00	33.50	32.80	.....	33.50
Minimum	21.90	20.80	20.60	21.80	23.00	.....	20.60	22.50	20.70	20.70	22.10	22.90	.....	20.70	18.90	19.80	19.00	20.70	21.20	.....	18.90
Days of record	All.	All.	All.	All.	All.	.....	All.	All.	All.	All.	All.	All.	.....	All.	All.	All.	All.	30	All.	.....	.....

TABLE 5.—Temperature at La Boca, in degrees centigrade.

		January.						February.						March.					
1 a. m.	23.64	26.08	25.61	25.75	24.98	25.21	24.36	25.29	26.65	26.02	25.73	25.60	24.60	26.30	26.85	26.07	25.12	25.79	
2 a. m.	23.22	25.63	25.29	25.33	24.64	24.82	23.87	24.79	26.22	25.61	25.33	25.16	24.17	25.81	26.31	25.62	24.71	25.32	
3 a. m.	22.82	25.21	25.01	25.02	24.26	24.46	23.53	24.38	25.79	25.26	24.91	24.78	23.79	25.38	25.83	25.17	24.26	24.89	
4 a. m.	22.46	24.89	24.74	24.62	23.95	24.13	23.09	24.03	25.51	24.99	24.57	24.44	23.47	25.01	25.42	24.81	23.95	24.53	
5 a. m.	22.20	24.55	24.58	24.29	23.67	23.86	22.80	24.71	25.12	24.70	24.25	24.14	23.17	24.67	25.05	24.47	23.62	24.20	
6 a. m.	21.95	24.27	24.37	24.04	23.41	23.61	22.51	24.46	24.64	24.43	23.93	23.79	22.90	24.37	24.64	24.15	23.28	23.87	
7 a. m.	21.72	23.92	24.16	23.71	23.12	23.33	22.19	23.22	24.29	24.21	23.48	23.48	22.50	24.04	24.11	23.81	22.90	23.47	
8 a. m.	21.91	23.59	24.36	23.62	23.22	23.34	22.09	23.26	24.56	24.26	23.53	23.54	22.95	23.95	24.25	23.74	23.14	23.60	
9 a. m.	23.27	23.92	25.01	23.90	24.02	24.02	23.22	24.03	25.69	24.80	24.42	24.43	24.78	24.54	25.11	24.44	24.15	24.64	
10 a. m.	24.87	24.75	25.92	24.85	24.75	25.03	25.05	25.46	27.05	25.85	25.51	25.78	26.62	25.89	26.37	25.35	25.42	25.93	
11 a. m.	25.42	25.90	26.63	26.06	25.62	26.15	27.01	26.60	28.01	26.39	26.54	27.03	28.10	27.36	27.59	26.67	26.41	27.23	
Noon	27.52	26.70	27.29	27.08	26.38	26.99	27.97	27.65	28.57	27.84	27.23	27.85	29.05	28.35	28.40	27.65	27.14	28.14	
1 p. m.	27.27	27.38	28.08	27.96	27.07	27.75	28.82	28.54	29.37	28.74	28.08	28.71	29.86	29.16	29.22	28.55	28.01	28.96	
2 p. m.	26.65	28.25	28.65	28.70	27.54	28.33	29.52	29.43	30.02	29.44	28.84	29.45	30.03	30.02	30.03	29.20	28.37	29.53	
3 p. m.	26.44	29.00	28.92	29.21	27.75	28.74	29.97	29.93	30.30	29.88	29.27	29.87	30.06	30.65	30.53	29.77	28.49	29.90	
4 p. m.	26.44	29.35	28.95	29.42	27.82	28.88	30.03	30.15	30.35	30.06	29.39	30.00	30.05	30.92	30.75	30.09	28.51	30.06	
5 p. m.	26.79	29.44	28.68	29.42	27.79	28.82	30.02	30.07	30.23	29.98	29.30	29.92	30.02	31.00	30.75	30.15	28.43	30.07	
6 p. m.	26.52	29.33	28.48	29.26	27.75	28.67	29.90	29.73	30.09	29.27	29.20	29.74	29.66	30.88	30.62	30.05	28.36	29.91	
7 p. m.	25.91	29.07	28.15	28.98	27.56	28.33	29.22	29.10	29.75	29.39	28.98	29.20	28.87	30.28	30.38	27.74	28.12	29.48	
8 p. m.	25.14	28.68	27.78	28.56	27.29	27.89	28.29	28.37	29.36	28.85	28.61	28.70	27.96	29.55	29.90	29.26	27.79	28.89	
9 p. m.	24.28	28.20	27.32	27.95	26.81	27.31	27.28	27.66	28.79	28.23	27.99	27.99	27.03	28.78	29.32	28.57	27.21	28.18	
10 p. m.	24.44	27.68	26.89	27.36	26.37	26.75	26.40	27.00	28.25	27.59	27.39	27.33	26.35	28.11	28.67	27.96	26.69	27.56	
11 p. m.	24.64	27.12	26.46	26.79	25.90	26.18	25.17	26.37	27.71	26.98	26.80	26.61	25.70	27.49	28.04	27.28	26.11	26.92	
Midnight	24.17	26.57	26.06	26.25	25.48	25.71	25.05	25.80	27.23	26.49	26.26	26.17	25.15	26.89	27.43	26.72	25.61	26.36	
Means.	25.39	26.65	26.56	26.59	25.71	26.18	25.33	26.58	27.64	27.10	26.65	26.82	26.53	27.47	27.73	27.04	26.08	26.97	
Maximum	31.00	30.60	31.60	31.00	29.90	31.60	31.90	31.20	32.10	31.00	31.40	32.10	32.10	33.00	32.60	31.80	30.50	33.00	
Minimum	20.30	22.50	23.00	22.50	21.70	20.30	20.90	20.50	22.30	22.30	21.90	20.50	20.00	21.70	22.10	22.10	21.70	20.00	
Days of record	All.	All.	All.	All.	All.	All.	All.	All.	All.	All.	All.	All.	All.	30	All.	All.	All.	.....	

		April.						May.						June.					
1 a. m.	25.21	27.20	27.10	26.72	25.36	26.32	26.22	26.08	25.73	26.01	25.79	26.68	26.69	26.25	26.30	26.00	25.70	26.30	
2 a. m.	24.82	26.71	26.10	26.26	25.04	25.92	25.95	25.80	25.50	25.75	25.54	26.38	26.41	25.94	26.00	25.70	26.30	26.00	
3 a. m.	24.44	26.25	26.48	25.77	24.71	25.63	25.70	25.52	25.26	25.49	25.29	26.08	26.09	25.63	25.70	26.30	26.00	25.70	
4 a. m.	24.15	25.88	26.22	25.47	24.44	25.23	25.48	25.28	25.03	25.26	25.11	25.79	25.81	25.40	25.50	26.30	26.00	25.50	
5 a. m.	23.88	25.55	25.99	25.12	24.18	24.94	25.28	25.07	24.85	25.07	24.90	25.50	25.54	25.12	25.20	26.30	26.00	25.20	
6 a. m.	23.63	25.23	25.79	24.83	23.97	24.69	25.10	24.84	24.68	24.87	24.74	25.24	25.34	24.53	25.00	26.30	26.00	25.00	
7 a. m.	23.36	25.01	25.57	24.63	23.64	24.44	24.88	24.73	24.55	24.72	24.61	25.00	25.16	24.53	25.00	26.30	26.00	24.80	
8 a. m.	23.84	25.10	25.81	24.56	23.73	24.61	25.20	25.20	24.66	25.02	24.96	25.30	25.32	24.54	25.00	26.30	26.00	24.80	
9 a. m.	25.76	25.75	26.61	25.02	24.50	25.53	26.28	25.76	25.10	25.71	25.78	25.96	25.90	25.05	25.00	26.30	26.00	25.60	
10 a. m.	26.94	26.78	27.62	26.01	25.51	26.57	27.36	26.51	25.75	26.54	26.77	26.59	26.84	25.71	26.40	26.30	26.00	26.40	
11 a. m.	27.92	28.12	28.62	27.07	26.32	27.59	28.17	27.32	26.46	27.28	27.56	27.32	27.73	26.52	27.20	26.30	26.00	27.20	
Noon	28.48	29.05	29.14	28.08	26.88	28.33	28.71	27.85	27.14	27.90	28.45	27.89	28.46	27.19	28.30	26.30	26.00	28.30	
1 p. m.	29.16	29.80	29.76	28.94	27.42	29.02	29.29	28.49	27.73	28.54	29.22	28.47	29.14	27.89	28.60	26.30	26.00	28.60	
2 p. m.	29.49	30.74	30.20	29.58	27.61	29.52	29.34	28.69	28.05	28.94	29.34	29.52	28.23	29.00	28.90	26.30	26.00	29.00	
3 p. m.	29.73	31.33	30.41	29.96	27.72	29.83	29.14	28.65	28.14	28.64	29.31	29.33	29.61	28.29	29.10	26.30	26.00	29.10	
4 p. m.	29.73	31.67	30.46	30.18	27.62	29.93	29.93	28.54	28.49	28.49	29.81	29.47	29.51	28.25	29.00	26.30	26.00	29.00	
5 p. m.	29.57	31.73	30.25	30.18	27.51	29.85	28.66	28.34	27.70	28.23	29.45	29.35	29.27	28.08	29.70	26.30	26.00	29.70	
6 p. m.	29.21	31.40	29.99	30.09	27.44	29.63	28.36	28.11	27.53	28.00	28.07	29.16	29.11	28.01	29.40	26.30	26.00	29.40	
7 p. m.	28.56	30.82	29.37	29.83	27.36	29.19	28.05	27.89	27.32	27.75	27.78	28.92	28.89	27.92	29.30	26.30	26.00	29.30	
8 p. m.	27.97	30.20	29.28	29.45	27.12	28.80	27.77	27.64	27.15	27.62	27.49	28.63	28.60	27.80	29.10	26.30	26.00	28.10	
9 p. m.	27.27	29.53	28.78	28.89	26.76	28.21	27.39	27.32	26.85	27.19	27.10	28.25	28.19	27.51	27.70	26.30	26.00	27.70	
10 p. m.	26.72	28.92	28.35	28.33	26.43	27.75	27.08	27.01	26.56	26.88	26.74	27.83	27.83	27.21	27.40	26.30	26.00	27.40	
11 p. m.	26.18	28.29	27.89	27.74	26.03	27.23	26.75	26.68	26.32	26.58	26.42	27.49	27.43	26.85	27.00	26.30	26.00	27.00	
Midnight	25.74	27.75	27.51	27.23	25.68	26.78	26.47	26.37	26.05	26.30	26.11	27.10	27.09	26.56	26.70	26.30	26.00	26.70	
Means.	26.74	28.28	28.09	27.50	25.96	27.31	27.19	26.82	26.34	26.77	26.85	27.36	27.48	26.63	27.00	26.30	26.00	27.00	
Maximum	32.00	35.20	33.20	32.20	30.00	35.20	32.20	31.00	31.00	31.00	32.20	31.50	31.40	32.00	30.90	32.00	32.00	32.00	
Minimum	20.30	23.80	23.80	22.10	22.00	20.30	22.80	23.00	22.90	22.90	22.90	23.30	24.00	23.70	22.80	22.80	22.80	22.80	
Days of record	All.	All.	All.	All.	All.	All.	All.	All.	All.	All.	All.	All.	20	25	All.	All.	.....	.....	

TABLE 5.—Temperature at La Boca, in degrees centigrade—Continued.

Hours.	July.							August.							September.						
	1899.	1900.	1901.	1902.	1903.	1904.	Mean.	1899.	1900.	1901.	1902.	1903.	1904.	Mean.	1899.	1900.	1901.	1902.	1903.	1904.	Mean.
1 a. m.	24.33	25.26	26.64	25.97	25.81	.....	25.60	22.65	26.10	26.54	25.47	24.99	.....	25.15	23.46	25.74	26.73	25.50	24.91	.....	25.27
2 a. m.	24.08	24.99	26.34	25.68	25.54	.....	25.33	22.40	25.81	26.27	25.21	24.70	.....	24.88	23.20	25.46	26.48	25.25	24.60	.....	25.00
3 a. m.	23.85	24.78	26.04	25.38	25.29	.....	25.07	22.17	25.55	26.01	24.96	24.44	.....	24.63	22.98	25.23	26.23	24.99	24.34	.....	24.75
4 a. m.	23.61	24.58	25.80	25.13	25.07	.....	24.84	21.95	25.33	25.79	24.75	24.24	.....	24.41	22.78	25.02	26.02	24.78	24.12	.....	24.54
5 a. m.	23.46	24.41	25.57	24.92	24.87	.....	24.65	21.77	25.14	25.60	24.54	24.00	.....	24.21	22.62	24.84	25.81	24.56	23.87	.....	24.34
6 a. m.	23.28	24.25	25.29	24.80	24.69	.....	24.46	21.64	24.94	25.35	24.33	23.81	.....	24.01	22.46	24.60	25.60	24.38	23.66	.....	24.16
7 a. m.	23.42	24.08	25.50	24.90	24.50	.....	24.48	21.54	24.77	25.26	24.22	23.60	.....	23.88	22.36	24.41	25.45	24.28	23.45	.....	23.99
8 a. m.	24.30	24.30	26.05	25.33	24.51	.....	24.90	21.71	25.04	25.73	24.41	23.69	.....	24.10	22.86	24.91	25.79	24.58	23.60	.....	24.35
9 a. m.	25.52	25.27	26.86	26.09	24.89	.....	25.73	22.70	26.11	26.50	25.00	23.95	.....	24.85	24.07	26.08	26.50	25.26	24.29	.....	25.24
10 a. m.	26.83	26.35	27.54	26.89	25.55	.....	26.63	24.08	27.40	27.43	25.79	24.61	.....	25.86	25.23	27.35	27.23	26.20	25.24	.....	26.27
11 a. m.	27.92	27.32	28.10	27.58	26.33	.....	27.45	25.36	28.52	28.26	26.40	25.27	.....	26.76	26.45	28.36	27.66	27.04	26.05	.....	27.11
Noon.	28.60	27.99	28.71	28.33	26.97	.....	28.12	26.20	29.18	28.80	26.99	25.94	.....	27.42	27.35	29.12	28.41	27.69	26.82	.....	27.88
1 p. m.	29.16	28.61	29.18	28.92	27.59	.....	28.69	26.67	29.75	29.30	27.60	26.48	.....	27.96	27.93	29.69	29.05	28.25	27.38	.....	28.46
2 p. m.	29.31	28.75	29.23	29.20	27.97	.....	29.39	26.79	30.04	29.52	27.91	26.82	.....	28.21	28.20	29.80	29.88	28.44	27.55	.....	28.67
3 p. m.	29.04	28.56	29.16	29.22	28.08	.....	29.31	26.45	29.87	29.41	28.03	26.98	.....	28.15	28.03	29.56	29.40	28.26	27.49	.....	28.55
4 p. m.	28.72	28.26	29.01	29.06	28.04	.....	28.62	26.01	29.47	29.11	28.02	27.06	.....	27.93	27.61	29.13	29.25	28.14	27.41	.....	28.31
5 p. m.	28.27	27.84	28.86	28.88	27.92	.....	28.35	25.70	29.00	28.82	27.99	27.00	.....	27.71	27.02	28.67	28.96	27.93	27.16	.....	27.95
6 p. m.	27.61	27.45	28.75	28.62	27.82	.....	28.03	25.30	28.64	28.55	27.74	26.84	.....	27.41	26.54	28.24	28.78	27.83	27.03	.....	27.68
7 p. m.	26.81	27.18	28.54	28.27	27.62	.....	27.68	24.86	28.23	28.35	27.49	26.74	.....	27.13	25.92	27.88	28.56	27.59	26.86	.....	27.36
8 p. m.	26.15	26.92	28.31	27.83	27.35	.....	27.31	24.43	27.88	28.10	27.15	26.56	.....	26.82	25.40	27.48	28.30	27.36	26.64	.....	27.04
9 p. m.	25.53	26.59	27.97	27.33	27.01	.....	26.89	24.03	27.45	27.73	26.79	26.22	.....	26.44	24.88	27.06	27.85	26.89	26.31	.....	26.62
10 p. m.	25.12	26.20	27.68	26.88	26.65	.....	26.51	23.60	27.09	27.99	26.44	25.93	.....	26.09	24.47	26.71	27.64	26.51	25.97	.....	26.26
11 p. m.	24.80	25.90	27.32	26.51	26.34	.....	26.17	23.26	26.70	27.08	26.08	25.56	.....	25.74	24.11	26.38	27.32	26.16	25.64	.....	25.92
Midnight.	24.48	25.61	27.00	26.18	26.06	.....	25.87	22.95	26.40	26.77	25.80	25.28	.....	25.44	23.82	26.05	27.03	25.85	25.35	.....	25.62
Means.....	25.96	26.31	27.47	27.00	26.35	.....	26.63	23.92	26.85	27.40	26.21	25.44	.....	26.05	24.99	26.99	27.48	26.40	25.66	.....	26.30
Maximum.....	32.90	31.00	31.40	32.40	30.80	.....	32.90	30.90	32.70	32.00	30.80	29.60	.....	32.70	32.50	32.90	31.70	30.90	29.80	.....	32.90
Minimum.....	20.90	22.70	23.90	22.50	22.60	.....	20.90	20.00	22.20	23.90	22.10	22.30	.....	20.00	20.60	22.20	24.20	22.70	22.30	.....	20.60
Days of record.....	25	30	All.	All.	All.	.....	.....	All.	All.	All.	All.	All.	.....	All.	All.	All.	All.	All.	All.	.....	All.

		October.							November.							December.						
		23.65	25.06	25.80	24.91	25.20	24.92	23.73	25.19	25.41	24.91	24.23	24.69	23.77	26.12	26.32	25.33	24.27	25.16			
1 a. m.		23.29	24.78	25.59	24.66	24.85	24.63	23.47	24.92	25.25	24.64	24.01	24.46	23.32	25.74	26.03	24.97	23.98	24.81			
2 a. m.		23.03	24.56	25.35	24.39	24.55	24.38	23.24	24.64	25.08	24.43	23.81	24.24	22.99	25.37	25.68	24.55	23.70	24.46			
3 a. m.		22.70	24.30	25.15	24.16	24.32	24.13	23.00	24.42	24.93	24.20	23.64	24.04	22.63	25.07	25.45	24.21	23.49	24.17			
4 a. m.		22.57	24.11	24.96	23.93	24.09	23.93	22.81	24.20	24.75	23.99	23.52	23.87	22.37	24.74	25.23	23.91	23.25	23.90			
5 a. m.		22.38	23.96	24.75	23.67	23.86	23.72	22.64	24.02	24.65	23.83	23.33	23.69	22.14	24.48	25.01	23.81	23.07	23.70			
6 a. m.		22.24	23.84	24.60	23.54	23.66	23.56	22.45	23.77	24.61	23.76	23.11	23.54	21.87	24.24	24.84	23.55	22.80	23.46			
7 a. m.		22.37	24.40	24.97	23.75	23.63	23.82	22.59	23.83	24.87	24.04	23.16	23.70	21.91	24.30	25.21	23.47	22.84	23.55			
8 a. m.		22.67	25.47	25.87	24.59	24.38	24.80	23.43	24.25	25.46	24.78	23.39	24.31	23.13	24.87	26.10	23.92	23.43	24.29			
9 a. m.		24.60	26.74	26.86	25.64	25.32	25.83	24.65	25.37	26.18	25.59	24.39	25.24	24.79	25.78	27.07	24.88	24.27	25.36			
10 a. m.		25.60	27.73	27.48	26.60	26.26	26.73	25.66	26.38	26.71	26.28	25.08	26.02	26.27	26.66	27.85	26.07	25.16	26.40			
11 a. m.		26.40	28.63	27.96	27.26	27.01	27.45	26.45	27.06	27.16	27.03	25.68	26.68	27.41	27.25	28.52	26.99	25.71	27.18			
Noon		27.09	29.21	28.37	27.83	27.64	28.03	27.10	27.68	27.50	27.64	26.17	27.22	28.30	27.97	29.15	27.86	26.39	27.93			
1 p. m.		27.44	29.03	28.46	27.99	27.83	28.15	27.61	28.19	27.70	27.92	26.35	27.55	28.82	28.64	29.45	28.55	26.79	28.45			
2 p. m.		27.24	28.71	28.21	27.85	27.80	27.96	27.71	28.26	27.72	27.95	26.33	27.59	28.97	29.04	29.43	29.00	26.85	28.66			
3 p. m.		26.90	28.49	27.92	27.62	27.65	27.72	27.61	28.20	27.63	27.83	26.20	27.49	29.05	29.19	29.29	29.20	26.74	28.69			
4 p. m.		26.57	28.06	27.63	27.32	27.35	27.39	27.24	27.98	27.43	27.52	25.92	27.22	29.05	29.22	29.03	29.17	26.49	28.59			
5 p. m.		26.22	27.54	27.46	27.08	27.21	27.10	26.68	27.73	27.22	27.31	25.70	26.93	28.74	29.07	28.79	29.03	26.35	28.40			
6 p. m.		25.70	27.19	27.29	26.80	27.03	26.80	26.06	27.46	26.95	26.95	25.56	26.60	27.99	28.80	28.56	28.71	26.19	28.05			
7 a. m.		25.23	26.86	27.08	26.50	26.81	26.50	25.62	27.12	26.69	26.61	25.41	26.29	27.24	28.47	28.19	28.29	25.96	27.63			
8 a. m.		24.93	26.49	26.83	26.11	26.46	26.16	25.16	26.70	26.38	26.28	25.15	25.93	26.39	28.00	27.66	27.67	25.60	27.06			
9 a. m.		24.60	26.14	26.59	25.81	26.14	25.86	24.75	26.30	26.13	25.93	24.92	25.61	25.54	27.54	27.21	27.11	25.28	26.54			
10 a. m.		24.25	25.76	26.31	25.48	25.81	25.52	24.42	25.90	25.88	25.66	24.64	25.28	24.95	27.08	26.87	26.54	24.93	26.07			
11 a. m.		23.90	25.46	26.05	25.19	25.49	25.22	24.06	25.54	25.66	25.26	24.39	24.98	24.28	26.60	26.68	26.08	24.61	25.63			
Midnight																						
Means		24.68	26.35	26.56	25.78	25.84	25.85	24.92	26.04	26.16	25.84	24.76	25.54	25.50	26.84	27.23	26.37	24.92	26.17			
Maximum		30.10		31.20	30.00	29.80	31.20	31.20	31.20	30.00	30.80	28.90	31.20	31.40	31.50	32.00	31.00	29.30	32.00			
Minimum		21.00		23.40	21.50	21.50	21.00	20.60	22.10	23.10	22.00	21.80	20.60	20.10	22.80	23.00	22.00	22.10	20.10			
Days of record		All.	7	All.	All.	All.	All.	24	All.	All.	All.		All.	All.	All.	30	All.					

TABLE 6.—Barometric pressure at Alhajuela, in millimeters, etc.—Continued.

Hours.	April.							May.							June.						
	1899.	1900.	1901.	1902.	1903.	1904.	Mean.	1899.	1900.	1901.	1902.	1903.	1904.	Mean.	1899.	1900.	1901.	1902.	1903.	1904.	Mean.
1 a. m.	760.00	760.00	759.40	759.72	757.89	759.40	759.40	760.10	759.80		759.67		759.86		760.60	759.90	759.00	760.05		759.89	
2 a. m.	59.70	59.80	59.10	59.49	57.84	59.18	59.18	59.90	59.50		59.53		59.64		60.30	59.70	58.80	59.86		59.66	
3 a. m.	59.50	59.60	58.70	59.36	57.81	58.99	58.99	59.70	59.40		59.53		59.54		60.10	59.50	58.70	59.77		59.52	
4 a. m.	59.50	59.60	58.80	59.41	57.77	59.02	59.02	59.60	59.50		59.61		59.57		60.00	59.50	58.70	59.77		59.49	
5 a. m.	59.60	59.80	59.00	59.00	57.71	59.14	59.14	59.60	59.70		59.83		59.71		60.10	59.80	58.80	59.86		59.64	
6 a. m.	60.00	60.20	59.30	59.90	57.71	59.42	59.42	59.90	60.10		60.12		60.04		60.20	60.20	59.00	60.16		59.89	
7 a. m.	60.30	60.60	59.70	60.34	57.72	59.73	59.73	60.10	60.50		60.35		60.32		60.50	60.40	59.40	60.43		60.18	
8 a. m.	60.60	60.70	60.00	60.44	57.90	59.93	59.93	60.40	60.40		60.37		60.39		60.70	60.40	59.40	60.44		60.24	
9 a. m.	60.70	60.40	59.80	60.03	58.03	59.99	59.99	60.60	60.10		60.16		60.29		60.90	60.10	59.20	60.15		60.09	
10 a. m.	60.80	59.70	59.40	59.28	58.07	59.45	59.45	60.60	59.70		59.80		60.03		60.90	59.70	58.60	59.73		59.73	
11 a. m.	60.60	59.10	59.00	58.60	57.92	59.04	59.04	60.50	59.20		59.25		59.65		60.70	59.10	58.00	59.05		59.21	
Noon	60.30	58.50	58.50	57.94	57.72	58.59	58.59	60.20	58.80		58.73		59.24		60.40	58.70	57.60	58.62		58.83	
1 p. m.	59.90	57.80	58.00	57.21	57.85	58.05	58.05	59.80	58.50		58.06		58.79		60.20	58.40	57.20	58.08		58.47	
2 p. m.	59.30	57.10	57.40	56.62	57.03	57.49	57.49	59.40	58.20		57.72		58.44		59.90	58.10	57.00	57.77		58.19	
3 p. m.	58.90	56.90	57.10	56.21	56.72	57.17	57.17	59.10	58.10		56.42		58.21		59.60	57.90	56.90	57.49		57.97	
4 p. m.	58.70	56.80	57.00	56.14	56.51	57.03	57.03	58.90	58.20		57.47		58.19		59.40	58.00	57.00	57.44		57.96	
5 p. m.	58.80	57.00	57.20	56.33	56.44	57.15	57.15	58.90	58.40		57.71		58.34		59.40	58.20	57.20	57.70		58.15	
6 p. m.	59.10	57.60	57.60	56.86	56.51	57.53	57.53	59.10	58.90		58.22		58.74		59.70	58.70	57.60	58.12		58.53	
7 p. m.	59.60	58.40	58.20	57.56	57.75	58.10	58.10	59.40	59.30		58.83		59.18		60.00	59.30	58.00	58.73		59.01	
8 p. m.	60.00	58.90	58.60	58.38	57.10	58.60	58.60	59.80	59.70		59.34		59.61		60.30	59.60	58.50	59.24		59.41	
9 p. m.	60.30	59.50	59.10	59.01	57.39	59.06	59.06	60.10	60.00		59.70		59.93		60.60	59.90	58.80	59.70		59.75	
10 p. m.	60.50	59.90	59.40	59.56	57.65	59.40	59.40	60.30	60.20		59.95		60.15		60.80	60.00	59.00	60.11		59.98	
11 p. m.	60.60	60.10	59.60	59.80	57.88	59.60	59.60	60.40	60.20		60.13		60.24		60.90	60.10	59.10	60.25		60.09	
Midnight	60.40	60.10	59.60	59.80	57.96	59.57	59.57	60.30	60.00		59.96		60.09		60.80	60.10	59.20	60.20		60.08	
Means.....	59.90	59.10	58.70	58.65	57.47	58.78	58.78	59.90	59.40		59.23		59.51		60.30	59.40	58.40	59.28		59.33	
Maximum.....	63.00	62.50	61.80	62.00	60.00	63.00	63.00	63.80	62.00		62.00		63.80		63.00	62.00	61.00	62.80		63.00	
Minimum.....	56.30	55.20	55.50	55.80	54.00	53.80	53.80	57.00	56.00		55.60		55.60		57.80	56.20	54.90	55.50		54.90	
Days of record.....	20	All.	17	All.	26			All.	All.		All.		All.		All.	All.	20	All.			

Hours.	July.							August.							September.						
	1899.	1900.	1901.	1902.	1903.	1904.	Mean.	1899.	1900.	1901.	1902.	1903.	1904.	Mean.	1899.	1900.	1901.	1902.	1903.	1904.	Mean.
1 a. m.	760.00	761.50	760.10	758.80	759.80	760.24	759.40	761.30	760.20	759.40	760.96		760.25	759.90	761.70	760.50	759.70	760.94		760.55	
2 a. m.	59.70	61.30	59.80	59.50	59.54	59.97	59.97	61.10	59.90	59.20	60.72		59.98	59.50	61.40	60.20	59.40	60.68		60.24	
3 a. m.	59.50	61.20	59.70	59.40	59.30	59.82	59.82	60.80	59.80	59.10	60.56		59.83	59.40	61.30	60.00	59.40	60.45		60.09	
4 a. m.	59.40	61.10	59.60	59.30	59.23	59.73	59.73	60.80	59.70	59.20	60.47		59.81	59.60	61.30	60.00	59.40	60.34		60.13	
5 a. m.	59.60	61.10	59.70	59.40	59.33	59.83	59.83	60.90	59.90	59.40	60.56		59.99	59.80	61.40	60.10	59.70	60.43		60.29	
6 a. m.	59.80	61.30	59.90	59.60	59.64	60.05	60.05	61.10	60.10	59.70	60.82		60.24	60.20	61.70	60.50	60.00	60.61		60.60	
7 a. m.	60.10	61.60	60.20	59.90	60.02	60.36	60.36	61.40	60.40	59.90	61.04		60.51	60.60	62.00	60.80	60.20	60.85		60.89	
8 a. m.	60.30	61.70	60.30	59.90	60.14	60.47	60.47	61.60	60.60	59.80	61.23		60.67	60.90	62.20	61.10	60.40	61.20		61.16	
9 a. m.	60.50	61.60	60.10	59.70	60.02	60.38	60.38	61.40	60.40	59.40	61.08		60.50	60.90	62.10	61.00	60.20	61.28		61.10	
10 a. m.	60.50	61.20	59.80	59.40	59.78	60.14	60.14	60.90	60.00	58.90	60.82		60.14	60.60	61.50	60.60	59.70	61.05		60.69	
11 a. m.	60.30	60.60	49.40	58.90	59.39	59.72	59.72	59.80	59.40	58.40	60.39		59.66	60.20	60.80	59.90	59.00	60.47		60.07	
Noon	60.00	60.20	59.00	58.50	58.98	59.34	59.34	59.40	59.90	58.80	59.95		59.17	59.70	60.10	59.30	58.30	59.83		59.45	
1 p. m.	59.70	59.70	58.50	58.10	58.55	58.91	58.91	59.00	59.50	58.30	59.44		58.75	59.20	59.70	58.60	57.80	59.19		58.90	
2 p. m.	59.20	59.40	58.20	57.70	58.20	58.54	58.54	58.60	59.20	57.10	59.17		58.41	58.90	59.10	58.10	57.40	58.78		58.46	
3 p. m.	58.90	59.10	58.00	57.50	58.05	58.31	58.31	58.30	59.00	57.90	59.00		58.22	58.80	58.60	58.10	57.30	58.57		58.27	
4 p. m.	58.90	59.10	57.90	57.40	58.04	58.27	58.27	58.20	59.00	58.00	58.77		58.19	58.80	58.90	58.20	57.50	58.55		58.39	
5 p. m.	59.00	59.20	58.00	57.60	58.23	58.41	58.41	58.40	59.10	58.20	59.01		58.44	59.00	59.40	58.40	57.70	58.63		58.63	
6 p. m.	59.30	59.70	58.30	58.00	58.57	58.77	58.77	58.70	59.50	58.70	59.42		58.86	59.40	59.90	58.90	58.30	58.95		59.09	
7 p. m.	59.70	60.30	58.80	58.50	58.95	59.25	59.25	60.00	59.30	58.50	59.82		59.34	59.80	60.40	59.40	58.80	59.43		59.57	
8 p. m.	60.20	60.80	59.30	59.00	59.30	59.72	59.72	60.50	59.70	59.10	60.30		59.82	60.30	61.00	59.80	59.30	59.87		60.05	
9 p. m.	60.50	61.20	59.80	59.50	59.59	60.12	60.12	60.90	60.00	59.40	60.67		60.17	60.60	61.50	60.30	59.70	60.28		60.48	
10 p. m.	60.70	61.60	60.10	59.80	59.79	60.40	60.40	61.20	60.30	59.80	61.00		60.48	60.60	61.80						